

State of Hawai'i
DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of Forestry and Wildlife
Honolulu, Hawai'i 96813

May 23, 2008

Chairperson and Members
Board of Land and Natural Resources
State of Hawai'i
Honolulu, Hawai'i

Land Board Members:

SUBJECT: REQUEST FOR APPROVAL TO RESTRICT ACCESS TO PORTIONS OF
`ĀHIHI-KĪNA`U NATURAL AREA RESERVE FOR A PERIOD OF UP TO
TWO YEARS TO IMPLEMENT THE `ĀHIHI-KĪNA`U RESOURCE
PROTECTION ACTION PLAN.

BACKGROUND:

In 1973, `Āhihi-Kīna`u was designated a Natural Area Reserve (NAR), making it one of the most highly protected lands under State jurisdiction. By law, all resources within the Reserve are protected from harm or disturbance. The NAR includes rare and endangered natural and cultural resources, including anchialine pool ecosystems, near-shore marine ecosystems, lava flow formations and their associated habitats, extensive intact Hawaiian cultural and historic sites, as well as remnant native coastal dry shrublands and forests. At the time of designation, the area had little or no visitation.

By April 2004, the growing numbers of people in the area led to user conflicts between the public and commercial activity, in particular, commercial kayak tours. Responding to concerns about unregulated commercial activity, the over-use by the public and their impact on the sensitive natural and cultural resources found there, the Department of Land and Natural Resources (DLNR) formed the `Āhihi-Kīna`u / Keone`ō`io Advisory Group (AK/KAG) to provide advice on these issues and a public forum to help in management decision-making. After input from the AK/KAG, the Natural Area Reserves System Commission, and the public, the DLNR in 2004 prohibited all commercial activity in the NAR and neighboring Keone`ō`io (La Perouse Bay). This decision was based on a DLNR Hierarchy of Use Policy (1998) which directs DLNR to protect the resources first, allow public use second, and allow commercial use third if it doesn't conflict or interfere with public use and resource protection.

Later in 2004, DOFAW secured a grant from the Hawaii Tourism Authority (HTA) to increase management capacity at `Āhihi-Kīna`u. This grant funded two Rangers to support a dedicated on-site presence. A separate grant to the Hawai'i Wildlife Fund supported the presence of naturalists to provide information for visitors to the Reserve. During this time, human use studies a cultural resources study, and natural resources surveys were conducted in order to document

the health and status of the resources and any changes that may have occurred after the ban on commercial activity. These studies showed that user numbers did not significantly decrease after the ban and negative impacts to protected resources were still occurring.

In order to address the continuing concerns about resource damage and negative impacts by visitors, the AK/KAG then recommended restricting all public access to Cape Kīna`u because natural and cultural resources were being trampled and degraded by misguided users who were hiking out on unmarked trails to go snorkeling. The NARSC approved their recommendation and voted unanimously in 2005 to recommend to the BLNR an immediate restriction of public access to this area. Before this recommendation was forwarded to the BLNR, the Attorney General advised that the Department did not have the legal authority to take such action.

The NARS rules were amended, effective January 2007, and among other things, specifically authorized the Department to close areas or restrict access to protect natural, geological or cultural resources or public safety to portions of *or* an entire NAR for a period of up to 2 years.

STAFF ANALYSIS:

Hawaii Revised Statutes § 195-5 provides that the Department of Land and Natural Resources may make rules governing the use, control, and protection of the areas included within the reserves system. Hawaii Administrative Rule § 13-209-4.5 provides:

“The board or its authorized representative, with the approval of the commission, may close or restrict the public use of all or any portion of a natural area reserve for up to two years, when deemed necessary by the commission for the protection of natural, geological, or cultural resources of the area, or the safety and welfare of persons or property, by the posting of appropriate signs indicating the duration, extent, and scope of closure. Closures may be renewed with the approval of the board or its authorized representative and the commission.”

The proposed closure is requested for the protection of natural, geological, and cultural resources of `Āhihi-Kīna`u Natural Area Reserve. The concept of a closure pursuant to the attached Action Plan was approved by the Natural Area Reserves System Commission at its April 21, 2008 meeting.

The Division is seeking approval to close all areas of the Reserve except `Āhihi Bay (including Maonakala, adjacent parking lot, and coastal access for surfing, snorkeling and hiking in designated areas) and Waiala (for snorkeling). The closure will run from August 1, 2008 through July 31, 2010. This closure will address the impacts to the natural and cultural resources of the Reserve by allowing the department to 1) reduce human impacts to the natural and cultural resources by reducing visitor volume; 2) implement resource monitoring; and 3) implement management strategies such as interpretive signage and trail improvements to reduce impacts to the resources after the closure period. Staff is working on a public notification plan through the visitor industry, media, general public notices, appropriate signs, and has been working closely with Maui staff of the Division of Conservation and Resource Enforcement (DOCARE) to design an enforcement plan. Monitoring will be done before and during closure to track progress and quality of recovery. Further details are outlined in the attached Action Plan.

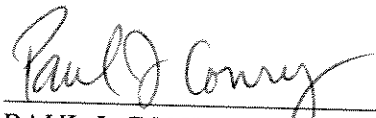
Staff has reviewed the survey results and recommendations as well as consulted other DLNR Divisions and the general public in matters of resource protection in `Āhihi-Kīna`u NAR. The `Āhihi-Kīna`u /Keone`ō`io Advisory Group and the Natural Area Reserves System Commission have both held numerous public meetings and both support the Resource Protection Action Plan. Staff strongly believes that natural and cultural resources in the NAR are being impacted and need immediate protection. Staff also recognizes that there are safety concerns present in the area as evident from the numerous injury reports and the proven existence of unexploded ordnance. Given these factors, staff recommends that access and use in `Āhihi-Kīna`u NAR be more intensively managed and that restrictions be put in place starting August 1, 2008 to better manage and direct user activities as described in the attached Resource Protection Action Plan.

Cultural practitioners will still be allowed to continue their traditional access by Special Use Permit through the Natural Area Reserves System Commission. Research and other requests may also be considered under the Special Use Permit Process through the Commission, with final approval by the Board of Land and Natural Resources or its authorized representative.

RECOMMENDATION:

That the Board of Land and Natural Resources approve the proposed two year access restriction, pursuant to HAR § 13.209-4.5, to portions of `Āhihi-Kīna`u Natural Area Reserve to allow implementation of the `Āhihi-Kīna`u Resource Protection Action Plan from August 1, 2008 through July 31, 2010.

Respectfully submitted,



PAUL J. CONRY, Administrator
Division of Forestry and Wildlife

APPROVED FOR SUBMITTAL:



LAURA H. THIELEN, Chairperson
Board of Land and Natural Resources

`ĀHIHI-KĪNA`U NATURAL AREA RESERVE
2 Year Resource Protection Action Plan
August 1, 2008 – July 31, 2010

This 2 year action plan addresses human impacts to natural and cultural resources in the `Āhihi-Kīna`u Natural Area Reserve (NAR) by controlling access and use throughout the reserve for a period of up to two years in order to mitigate negative impacts associated with visitor use. It does not address other issues including total volume of visitors to the reserve, traffic concerns, or long term planning.

The desired outcomes of this plan are:

- Immediately reduce human impacts to natural and cultural resources
- Increase visitor safety and emergency personnel response time
- Implementation of resource monitoring to assess resource recovery

`Āhihi-Kīna`u NAR, located on the island of Maui (see Figure 1), is part of a larger Natural Area Reserves System (NARS) which according to Chapter 195-1 of the Hawaii Revised Statutes, “should be protected and preserved, both for the enjoyment of future generations, and to provide base lines against which changes which are being made in the environments of Hawaii can be measured.” These reserves should “be set aside and administered solely and specifically for the aforesaid purposes; and preserved in perpetuity...as relatively unmodified as possible.”

Pursuant to Hawaii Administrative Rules §13-209-4.5 Closing of Areas, the Board of Land and Natural Resources “...may close or restrict the public use of all or any portion of a natural area reserve for up to two years, when deemed necessary by the Commission for the protection of the natural, geological, or cultural resources of the area or the safety and welfare of persons or property...”

A preliminary draft of this plan was presented in public informational meetings on January 31, 2008 and February 7, 2008, at the NARS Commission (NARSC) meeting on February 3, 2008, and the `Āhihi-Kīna`u /Keone`ō`io Advisory Group (AK/KAG) on April 7, 2008. The comments received at those meetings have been integrated into this document and were presented for comments and action to the NARSC on April 21, 2008.

I. BACKGROUND

In 1973, `Āhihi-Kīna`u was designated as a Natural Area Reserve (NAR), making it one of the most highly protected lands under State jurisdiction. By law, all resources within the Reserve are protected from harm or disturbance. The Reserve includes rare and endangered natural and cultural resources, including anchialine pool ecosystems, near-shore marine ecosystems, lava flow formations and their associated habitats, extensive intact Hawaiian cultural and historic

sites, as well as remnant native coastal dry shrublands and forests. At the time the area had little or no visitation.

By April 2004, the growing numbers of people in the area led to user conflicts between the public and commercial activity, in particular, commercial kayak tours. Responding to concerns about unregulated commercial activity, the over use by the public and their effect on the highly protected natural and cultural resources found there, the Department of Land and Natural Resources (DLNR) formed the AK/KAG to provide advice on these issues and a public forum to help in management decision-making. After meeting with the AK/KAG, the NARSC, and the public, the DLNR in 2004 prohibited all commercial activity in the Reserve and neighboring Keone`ō`io (La Perouse Bay). This decision was based on a DLNR Hierarchy of Use Policy (1998) which directs DLNR to protect the resources first, allow public use second, and allow commercial use third if it doesn't conflict or interfere with public use and resource protection.

Later in 2004 DOFAW secured a grant from the Hawaii Tourism Authority (HTA) to increase management capacity at `Āhihi-Kīna`u. This grant funded two Rangers to support a dedicated on-site presence. A separate grant to the Hawai'i Wildlife Fund (HWF) supported the presence of naturalists to provide provided funds to hire State Rangers to provide information to visitors to the Reserve. During this time, human use studies and resource surveys were funded in order to document any changes that may have occurred after the ban on commercial activity. These studies showed that user numbers did not significantly decrease after the ban and negative impacts to protected resources were still occurring.

In order to address these continuing concerns about resource damage and negative impacts by visitors, the AK/KAG then recommended restricting all public access to Cape Kina`u because natural and cultural resources were being trampled and degraded by misguided users who were hiking out on unmarked trails to go snorkeling. The NARSC approved their recommendation and voted unanimously in 2005 to recommend to the BLNR an immediate restriction of public access to this area. Before this recommendation was forwarded to the BLNR, the Attorney General's office advised that the Department did not have the legal authority to take such action.

The NARS rules were amended, effective January 2007, and among other things, specifically authorized the department to close areas or restrict access to protect the natural, geological, or cultural resources, or public safety to portions of *or* an entire NAR for a period of up to 2 years.

II. FINDINGS AND RECOMMENATIONS

During the rule amendment process (2004-2007), the DLNR contracted studies to catalogue resources, establish baselines, and quantify impact levels and locations of human use. All of the findings and recommendations from these reports identified resource impacts and called for routing people away from sensitive ecological or cultural areas, and/or providing the appropriate amount of guidance to visitors in order to assure behaviors do not continue to negatively impact those resources. The findings and recommendations from these studies are summarized below and represented graphically on Figure 2. Given the preservation mandate of the NAR, current impacts and the potential for future impacts from unrestricted public use are deemed unacceptable and require increased management efforts.

A. Human Use Surveys¹

Surveys determined approximately 250,000 people visit the NAR every year, of which 75% are from out of state. Nearly 10% of all visitors to Maui go to this NAR, making it the 3rd highest visitor attraction on Maui. The majority of visitors come to the Reserve to snorkel. The HWF Education Station at the parking area adjacent to Maonakala and `Āhihi reaches 16% of all visitors to the Reserve. Naturalists there educate visitors on safety precautions, proper behavior and NARS rules. During a five month human use survey at Kalaeloa in 2006, hundreds of incidences of negative impacts to resources were recorded. These included standing on the reef, fish feeding, chasing sea turtles, collecting live shells and coral (all prohibited activities), and ignoring advice of naturalist. Without Rangers present, visitors may not be clear on rules and restrictions within the NAR and more violations can occur.

B. Anchialine Pond Survey²

This study determined the anchialine ponds within the NAR are the most pristine in the State, and the most endangered aquatic ecosystem in the entire United States. Found only on new lava substrate, many of these types of pools on the Kona Coast have been filled in by development, altered by nutrient inputs, or have lost their native biota due to alien species predation. Therefore, it is deemed absolutely essential to preserve the integrity of the `Āhihi-Kīna`u NAR pools. The primary threat to integrity of these ecosystems is the introduction by humans of predatory aquatic alien fish species that eat the native shrimp. Other documented human impacts are human trampling and the use of the pools as toilets and rubbish bins. The report recommends management restrict public access to the pools and maintain a 100 m buffer around 11 of the 12 pool groups.

C. Marine Trampling Survey³

The primary finding the recent near-shore trampling survey is that a few areas are particularly highly susceptible to coral damage from visitor trampling. Recommendations include: developing clearly marked trails to areas where little impact from entry to the water will occur, and focusing snorkeling traffic away from shallow coral areas; close areas with corals vulnerable to trampling impacts; emphasize alternatives to sensitive areas and expand ongoing monitoring of human impacts to marine ecosystems.

¹ Hawaii Wildlife Fund. 2006. Education Station at Ahihi-Kinau Natural Area Reserve. Final Report (report 8A) September 2004-August 2006: Maonakala, South Maui. Hawaii Tourism Authority Contract with DLNR No. BT-04-64. September 29.

CSV Consultants and Hawaii Wildlife Fund. 2007. Human Usage Patterns Data Report for Keoneoio and the Ahihi-Kinau Natural Area Reserve, South Maui: Census Surveys, Technical Surveys, and Education Station Data. Prepared for DLNR, DOFAW, Kahului Hawaii. Requisition #C33786. March 30.

² Brock, Richard E. 2004. Anchialine Resources in Two Hawaii State Natural Area Reserves: Ahihi-Kinau, Maui Island and Manuka, Hawaii Island with Recommendations for their Management. Prepared for Pacific Islands Coastal Program, U.S. Fish and Wildlife Service, Honolulu. EAC Report No. 2004-15.

³ Rodger, Kuulei S., Paul L. Jokiel. In prep. Evaluation of the Ahihi-Kinau Natural Area Reserve Marine Resources. Human Impact Evaluation on Nearshore Environments. Hawaii Coral Reef Assessment and Monitoring Program (CRAMP). Hawaii Institute of Marine Biology for DLNR, DOFAW.

D. Cultural Resource Management Plan⁴

For this plan, cultural sites and resources along the main trails/pedestrian traffic routes in the NAR were surveyed, assessed and analyzed. The surveys found that many cultural sites are being inadvertently impacted by visitors. A few sites having been completely trampled to the ground, however, many other sites remain in good condition. For sites in or near the pedestrian traffic corridors, management recommendations are proposed on a site by site basis. The plan found that the greatest impacts were occurring in the area southeast of Cape Kīna`u (Keone`ō`io-La Perouse), which contains the highest density of archeological features in the NAR. These impacts are taking place where visitors are seeking advertised snorkeling opportunities at Kalaeloa. Alternatives recommended for preserving these sites include: prohibit access, rerouting trails, improving trails, installing aggressive signage and increasing Ranger presence in the area.

E. Unexploded ordnance survey

Cape Kīna`u was used as a live firing range mid last century, and live ordnance has recently been located and Cape Kīna`u evacuated. A ground survey by Parsons to determine the presence of live ordnance and identifies that the presence of additional ordnance throughout the reserve is highly likely. Their report recommended that additional more comprehensive surveys be conducted in the future.

III. RESOURCE PROTECTION AND VISITOR MANAGEMENT

Based on the NARS statutory mandate, the recommendations from the AK/KAG, NARSC, studies conducted, and safety and liability concerns; management proposes to prevent further resource damage from human use, particularly on Cape Kīna`u, by controlling access and use in the entire NAR for up to two years. This will be accomplished by allowing public use and access in a portion of the NAR ("Public Use Area") while restricting use and access in other areas ("Restricted Use Area").

The Public Use Area encompasses the area from the entrance of the NAR up to Maonakala Village (see Figure 3). This area was chosen because user impacts and visitor safety issues are more readily managed at this location. For example, this area contains the only designated parking areas, less sensitive and safer entry areas situated a short distance from parking (2-3 minutes vs. 45 minute walks), and cell phone reception that facilitates quicker emergency and enforcement response times. In addition, intensive outreach efforts can be focused on one central location at the front of the Reserve.

Cultural practitioners will still be allowed access in the Reserve through the Special Use Permit process; research or other access requests will also follow the Special Use Permit process, to be considered by the full NARS Commission or their authorized representative, with final approval by the Board of Land and Natural Resources or its authorized representative.

⁴ Desilets, M., B. Dixon, T. Lee-Greig, M. Willis, R. Rogers, T. Drennan. 2007. A Cultural Resource Management Plan for Ahihi-Kinau Natural Area Reserve and Keoneoio. Garcia and Associates, 146 Hekili Street#101, Kailua Hi 96734. GANDA Report No. 2085-1. March.

IV. GOAL, OBJECTIVES, AND WORKPLAN

Over the two year closure period, NARS staff will implement management recommendations and monitor the results of those actions to determine the effect on the resources. This section describes the proposed actions and provides time-limited benchmarks for providing information to the public as well as a feedback and adjustment process for staff planning, actions, and measuring results.

Throughout the 2 year Action Plan period, results will be measured by both the achievement of the stated objectives and the measureable alleviation of impacts to resources on Cape Kīna`u. Specifically, through resource and human use monitoring, we expect to document:

- Reduced impacts to anchialine pools
- Lack of new trails being created
- Lack of new damage to cultural sites
- Fewer people
- Fewer serious safety incidents
- Biological recovery in selected sites
- Results of selected visitor management scenarios

The intent is to use this information to develop a management plan to guide and manage visitor activity in a way that eliminates or reduces their impact on natural and cultural resources after the two-year closure period is complete.

Goal

Prevent and reduce impacts to natural and cultural resources and increase public safety by providing a management framework with clear information on permitted use and restrictions.

Objective	Action	Performance Measure	Due Date
1. By June 2008, receive BLNR approval on action plan to control access and use within `Āhihi-Kīna`u NAR by zone for two years.	Solicit comment on action plan at advisory group meetings.	Advis. Group approval	April 7, 2008
	Revise plan as needed, solicit comments on Action Plan at NARS Commission meeting.	NARSC approval	April 21, 2008
	Revise plan as needed, present plan to BLNR for final approval.	BLNR approval	May 2008
2. By August 2008, implement an aggressive and methodical outreach program to inform the general public about the NAR restrictions before they enter the area.	Issue press release to general public through various media.	% informed public	By August 1, 2008
	Issue printed notice to visitor industry (rental car companies, concierge, guidebooks, visitor channel)	% informed visitors	By August 1, 2008
	Develop and upload a website	% website developed Number of hits	By July 1, 2008
		User surveys	
3. Provide the public with regular, interactive means to track progress through public advisory group meetings and an interactive website.		% website developed	
	Develop and upload website	Number of hits	By August 2008
		Number of plans/reports downloaded	

4. By August 2008, provide the public with clear information about access and use by clearly delineating boundaries through the posting of signs, by fencing, and by distributing educational material.	Hold quarterly meetings to report progress and receive public input	Comments posts on website Number of meetings	Beginning in July 2008
		Number of attendees	
		Comments	
	Install 40 regulatory and educational signage	Number of signs installed	By August 2008
	Design and distribute NAR informational pamphlet (rules, zones, recommended snorkeling areas).	Number of pamphlets printed and distributed	By July 15, 2008
	Erect visual barriers (low fencing) to protect Maoanakala village and help to define zone border	Meters of fencing erected Number of people entering restricted area	By June 2008
	Erect physical barriers for future outplanting site and to help define zone border at Kataeloa	Meters of fencing erected Number of people entering restricted area	By July 2008
5. By August 2008, minimize entry into the restricted zones by increasing presence throughout NAR and ensure effective enforcement of illegal activity if it occurs	Design protocol for educating users on scene and reporting violations	Number of users informed on scene Number of volunteer hours Number of violations reported	By August 2008
	Engage DOCARE, MPD, and citizens patrol	Number of citations/warnings/arrests Man hours in reserve	By August 2008
6. By August 2008, increase communication capability thorough out reserve by installing a repeater system.	Purchase and install radio repeater	% progress on repeater installation	By August 2008
	Purchase radios for expanded	Radios purchased	By August

outreach programs		Staff / volunteers trained	2008
7. By November 2008, increase management capacity by hiring and training 3 well equipped rangers.	Hire and train 3 rangers	% progress on hiring and training rangers	1 by June, 2 more by July 2008
8. By December 2008 finalize and implement regular monitoring to assess status and trends of key natural resource features (e.g. fish populations, near-shore corals, anchialine pool fauna)	Previous survey methodology evaluated and set of long-term monitoring protocols finalized by August 2008 Baseline monitoring completed on an annual basis	Staff	By December of each year
9. By August 2008 complete baseline monitoring for human impacts to resources in and out of restricted zones.	Survey human use behavior	Number, activity, and location of people	By August 2008
10. By August 2008 complete baseline monitoring for natural resources, incorporating previous studies	Protocols developed and baseline human impacts to resources survey completed in open and restricted areas (anchialine, geological, cultural, marine)	Staff, trained volunteers, others	By August 2008
11. By January 2009, design and test a program to provide reliable, quality, guided educational walks for visitors to Kalaeloa and Mokuha.	Design and test program to provide 2 hikes/ day, 2 days a month	Number of participants Survey results of participants	By January 2009
	Evaluate feasibility to expanding guided hike program	Numbers of ranger hours needed Number of volunteers/docent available Liability / costs associated with expansion	By May 2009
12. By June 2010 delineate clearly marked trails and ocean entry points to prevent degradation of resources and increase visitor safety.	Delineate clear trails that avoid sensitive resources at 'Ahihi Bay and Mokuha	% of trail delineation completed	'Ahihi Bay trail by August 2008 All others by June 2010

13. Continue monitoring of natural and cultural resources, building on baseline monitoring (9&10)	Assess the possibility of delineating trail to Kalaeloa Assess effects of increased visitation	% completion of assessment decision to delineate trail Staff, others	By November 2009 Ongoing
14. Continue revising and updating `Āhihi-Kīna`u NAR Management Plan, incorporating Action Plan	Work with Advisory Group and other interested groups	Staff, others	By or before July 31, 2010

Figure 1. Map of `Ahihi-Kina`u Natural Area Reserve located in the moku of Honua`ula on the south flank of Haleakala, Island of Maui.

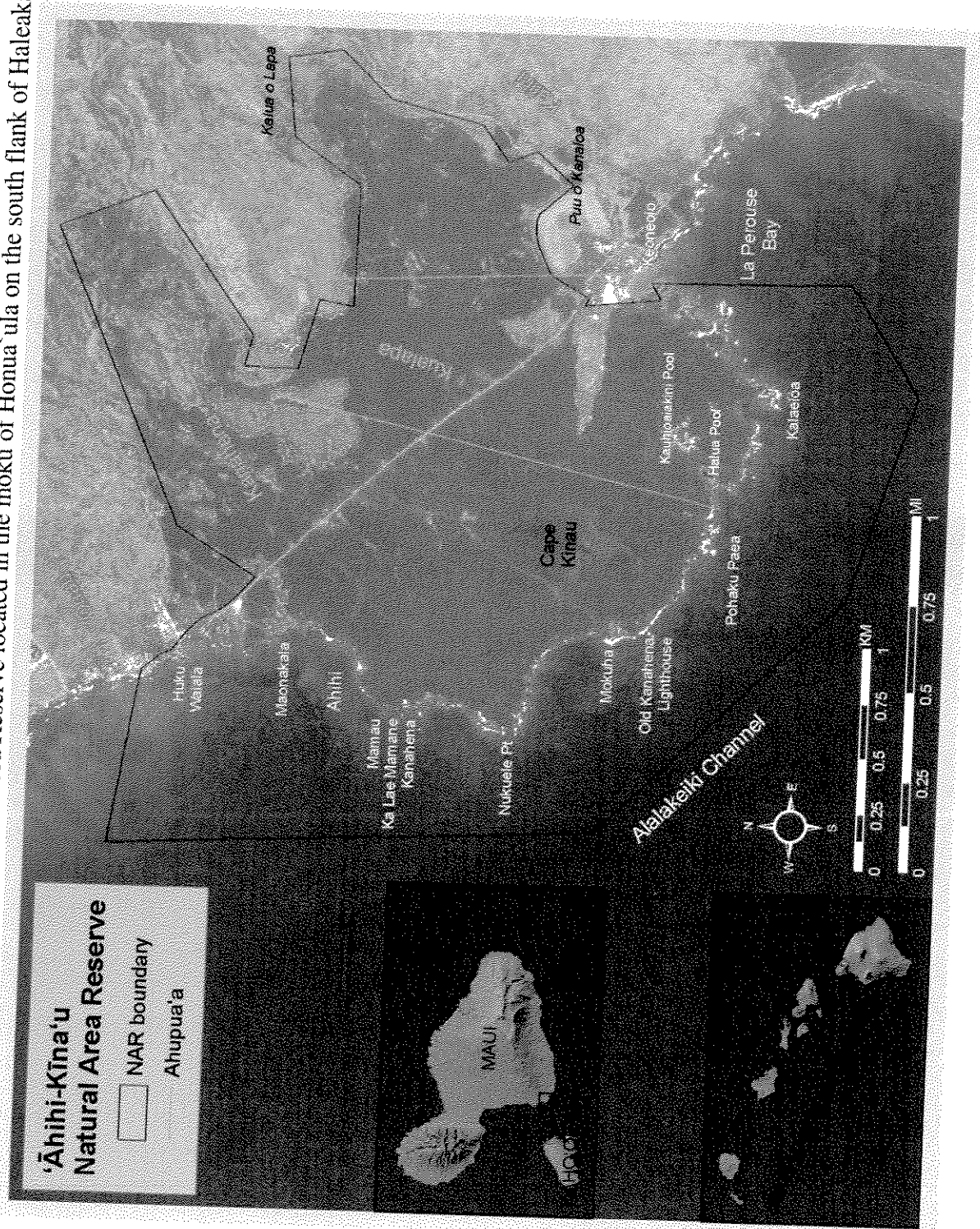


Figure 2. Map showing spatial representation of documented impacts and risks to cultural, anchialine, and marine resources on Cape Kina`u.

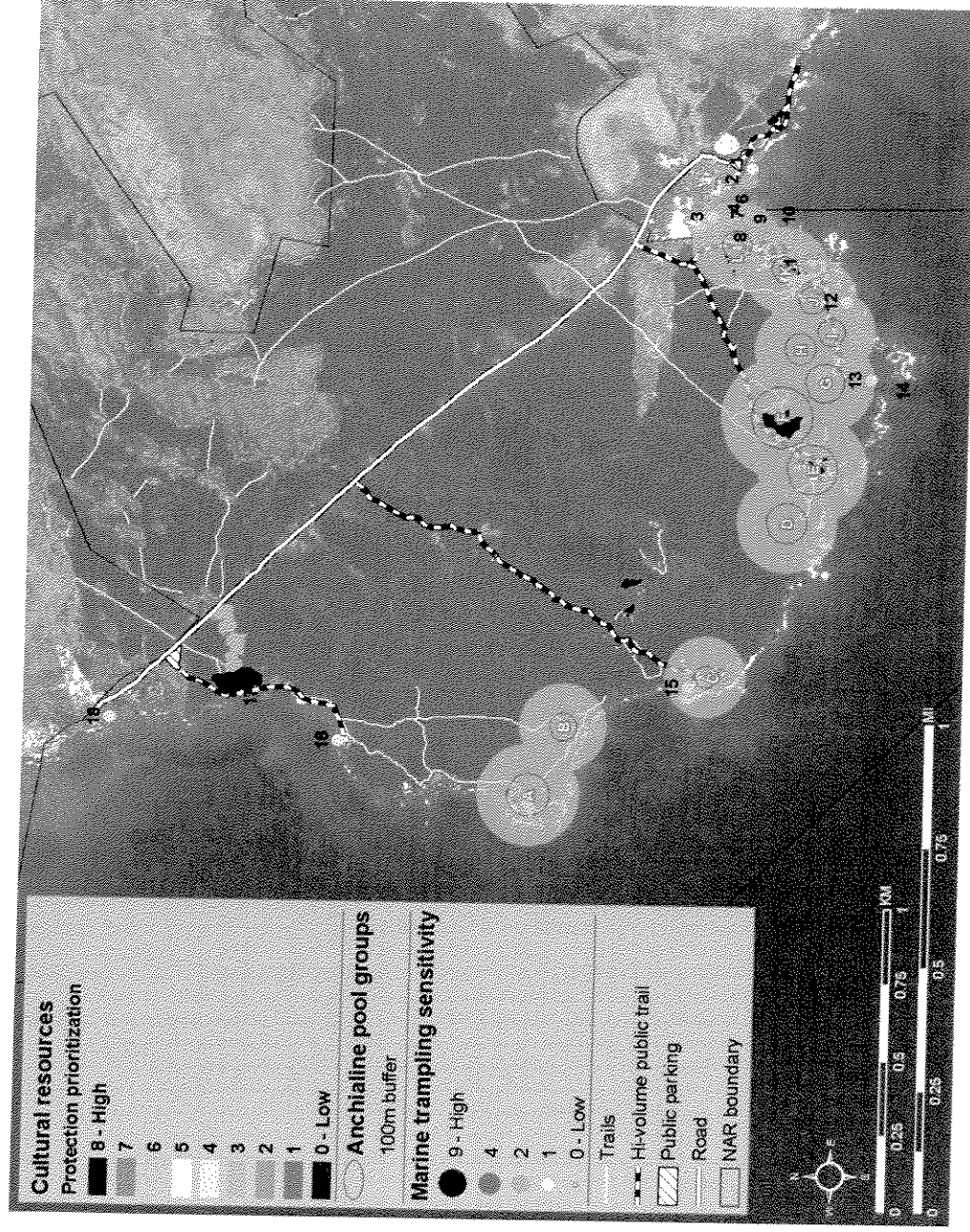


Figure 3. Map of proposed zoning to reduce human impacts to vulnerable resources and visitor safety incidents.

